

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MICHIGAN

SIERRA CLUB,)
v. Plaintiff,) Case No. 1:08-cv-1183
CITY OF HOLLAND and HOLLAND) Hon. Paul L. Maloney
BOARD OF PUBLIC WORKS,)
Defendants.)
ORAL ARGUMENT REQUESTED

**BRIEF IN SUPPORT OF PLAINTIFF'S FIRST MOTION FOR PARTIAL SUMMARY
JUDGMENT ON THE BURDEN OF PROOF FOR DEFENDANTS' "ROUTINE
MAINTENANCE" DEFENSE AND THE APPLICABLE METHOD FOR
CALCULATING EMISSION INCREASES FROM MODIFICATIONS MADE TO THE
DE YOUNG PLANT**

I. INTRODUCTION.

This case is a “citizen suit” to enforce the Clean Air Act’s New Source Review (“NSR”)¹ provisions. Plaintiff Sierra Club asserts that Defendants City of Holland and Holland Board of Public Works made “major modifications” at their James De Young Generating Station which triggered their obligation to comply with NSR. Whether a project at a major source of air pollution constitutes a “major modification” depends on two factors: (1) whether the change falls under the “routine maintenance, repair and replacement” exemption (hereinafter referred to as “routine maintenance”); and (2) whether the change resulted in a significant increase of pollutant emissions.

This motion presents two legal issues for the Court to decide:

¹ “New Source Review” refers, generally, to the Prevention of Significant Deterioration program and the Nonattainment New Source Review program in Parts C and D of the Clean Air Act, respectively. 42 U.S.C. §§ 7470-7515.

1. Who has the burden of proof on the question of whether changes made by the Defendants at the Plant were “routine maintenance”?
2. What test should be used to determine whether a significant increase of pollutant emissions resulted from the changes the Defendants made?

The purpose of this motion is to streamline the discovery process and limit the issues for trial.

With respect to the first question, according to the Joint Status Report filed in this case on April 13, 2010, the parties’ proposed that the party bearing the burden of proof on an issue would disclose its expert witness report first. (Doc. 28², pp. 4-5) At the telephonic status conference, the Magistrate Judge determined that the Plaintiff would submit its expert witness report first, but if this Court were to determine that the Plaintiff did not bear the burden of proof on an issue, the Plaintiff could request that the Case Management Order be revised to reflect that change. (Loehr Dec. ¶ 5.) For reasons explained below, Sierra Club submits that the Defendants bear the burden of proof with respect to the “routine maintenance” issue. Thus, the Court’s decision on that question will clarify the order for filing expert witness report and streamline further proceedings in this case.

The second question also relates to expert reports and streamlining the proceedings in this case. The necessity of expert witnesses and the extent of analysis each expert witness must perform varies depending on which significant emissions increase test the Court deems applicable to a particular project. There are two tests for determining a significant increase in emissions: (1) the default “actual-to-potential” test; and (2) the alternative “actual-to-projected-actual” test.³ Sierra Club submits that the proper test for calculating emission increases from projects the Defendants undertook at the Plant prior to March, 2003, is the default “actual-to-

² Documents and evidence already on file in this case are identified by document number (e.g., “Doc. __”).

³ These tests are discussed in greater detail in section V.B.

potential” test. Determining which test is applicable will limit the analysis performed by both parties’ expert witnesses and will streamline the process in this case. Thus, for the reasons explained below, Sierra Club respectfully requests that the Court find that the Defendants bear the burden of proof on the “routine maintenance” issue and that the “actual-to-potential” test applies to projects the Defendants undertook at the Plant.

II. PLAINTIFF’S STATEMENT OF MATERIAL FACTS NOT IN DISPUTE.

1. Defendants are local government entities who own and are responsible for the operations of the James De Young Generating Station, which is located at 64 Pine Avenue, Holland, Ottawa County, Michigan. (Answer to Amend. Compl., 3/18/10, Doc. 26 ¶¶ 10, 11, 19, 27.)

2. The De Young plant consists of three boilers that are fired on coal and natural gas. (Doc. 26 ¶ 20.)

3. Boiler 3 was installed in 1953 and has a rated nameplate capacity of approximately 11.50 Megawatts (MW). (Doc. 26 ¶ 21.)

4. Boiler 4 was installed in 1961 and has a rated nameplate capacity of approximately 22 MW. (Doc. 26 ¶ 22.)

5. Boiler 5 was installed in 1968 and has a rated capacity of approximately 28.75 MW. (Doc. 26 ¶ 23.)

6. The De Young plant has the potential to emit over 100 tons per year of at least the following pollutants: nitrogen oxide, sulfur dioxide, carbon monoxide, and particulate matter. The plant is a “major emitting facility” as that term is used in 42 U.S.C. § 7475(a) and a “major stationary source” as that term is used in 40 C.F.R. § 52.21(a)(2), (b)(1) and 40 C.F.R. § 51.165(a)(1)(iv), Appendix S and Michigan Rule 220. (Doc. 26 ¶¶ 28, 29.)

7. Ottawa County, Michigan, was classified as “attainment” or “unclassifiable” for all pollutants with the exception of ozone, for which the county was designated as “nonattainment” from approximately 1978 through 1996 and again from June 15, 2004 to May 16, 2007. 69 Fed. Reg. 23,857 (April 30, 2004); 72 Fed. Reg. 27,425 (May 16, 2007); http://www.epa.gov/air/oaqps/greenbk/anay_mi.html.

8. On August 7, 1980, the United States Environmental Protection Agency incorporated the provisions of 40 C.F.R. § 52.21 into the Michigan State Implementation Plan. 45 Fed. Reg. 52,741 (Aug. 7, 1980). On March 10, 2003, the United States Environmental Protection Agency incorporated revised provisions of the federal PSD regulations in 40 C.F.R. § 52.21 into the Michigan State Implementation Plan. 68 Fed. Reg. 11,316, 11,323 (Mar. 10, 2003). Consequently, at all times relevant to this suit, the Prevention of Significant Deterioration (“PSD”) regulations that applied to sources in Michigan were those in 40 C.F.R. § 52.21. 40 C.F.R. § 52.1180(b) (1980-2003); *In re General Motors, Inc.*, 10 E.A.D. 360, 362 (EAB 2002) (*available at*

http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/203899b9359b790a8525706c004d1a3a/c39cdda475ee33ad85257069005f7d67!OpenDocument).

9. At various times since 1988, Defendants made various changes to the De Young plant. (Doc. 26 ¶ 65.) Those projects, as disclosed by Defendants to the United States Environmental Protection Agency, include a number of projects such as the installation of superheater tubes on Unit 3 in 1996 and on Unit 4 in 1997 and the installation of condenser tubes on Unit 5 in 2000. (Kilcoyne Dec., Ex. A.)

10. Defendants have not submitted any reports pursuant to 40 C.F.R. § 52.21(b)(21)(v), as in effect between July 21, 1992 and March 3, 2003, related to any physical or operational change at the James De Young Station. (Kilcoyne Dec., Ex. B (Resp. to RFA 1.))

11. Defendants have not submitted any reports pursuant to Mich. Admin. Code R. 336.2818(3) for any project at the James De Young Station. (Kilcoyne Dec., Ex. B (Resp. RFA 2.))

12. The Defendants assert that they did not make any major modifications at the De Young Plant because Defendants argue that any projects at the plant where “routine maintenance, repair and replacement,” and are not a “physical change” that would trigger the requirements at issue. (Doc. 28 ¶ 5.)

III. STANDARD FOR SUMMARY JUDGMENT.

Summary judgment is appropriate if the evidence on record shows “that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.” Fed. R. Civ. P. 56(c). Only *genuine* issues of *material* fact can prevent the grant of summary judgment. *Anderson v. Liberty Lobby*, 477 U.S. 242, 247-48, 106 S.Ct. 2505 (1986) (emphasis in original). “Genuine” issues are those upon which “a reasonable jury could return a verdict for the nonmoving party.” *Id.* at 248. “Material” facts are identified by the substantive law of the case. *Id.* Therefore, “[o]nly disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment.” *Id.* (citations omitted). Once the moving party demonstrates a lack of genuine issues of material fact, the non-moving party must establish through evidence outside the pleadings that a genuine issue of fact exists for trial. *Celotex Corp. v. Catrett*, 477 U.S. 317, 324-25 (1986).

IV. BACKGROUND ON THE CLEAN AIR ACT AND NEW SOURCE REVIEW PROGRAM.

The Clean Air Act (“CAA”) is designed to protect and enhance the quality of the nation’s air. 42 U.S.C. § 7401(b). Congress enacted the CAA Amendments of 1970 “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” 42 U.S.C. § 7401(b)(1).

One of the CAA’s primary goals is to limit pollutant emissions from major sources of air pollution like the De Young plant operated by Defendants. Through the CAA, Congress directed EPA to establish National Ambient Air Quality Standards (“NAAQS”) to limit ambient air concentrations of pollutants to levels protective of public health and welfare, 42 U.S.C. § 7409, and to authorize States to establish state implementation plans (“SIPs”) containing pollution control measures sufficient to achieve and maintain the NAAQS. 42 U.S.C. § 7410; *see also General Motors Corp. v. U.S.*, 496 U.S. 530, 533 (1990); *Union Elec. Co. v. EPA*, 427 U.S. 246, 249-50 (1976). Pursuant to this directive, EPA promulgated NAAQS for various pollutants, including particulate matter, sulfur dioxide, and nitrogen dioxide. *See* 40 C.F.R. pt. 50.

Part D of Title I of the Act, 42 U.S.C. 7501-7515, provides New Source Review (“NSR”) requirements for areas designated as being in non-attainment with the NAAQS standards. Those provisions are referred to as the “Non-attainment NSR” program. The Non-attainment NSR program aims to reduce emissions in areas failing the NAAQS so that those areas make progress towards meeting the NAAQS. Under 42 U.S.C. § 7502(C)(5) and 40 C.F.R. § 51.165 each state is required to adopt Non-attainment NSR SIP rules that include provisions to require permits that conform to the requirements of 42 U.S.C. § 7503 and 40 C.F.R. § 51.165 for the construction and operation of modified major stationary sources within non-attainment areas.

For those areas that are meeting the NAAQS, Congress added the Prevention of Significant Deterioration (“PSD”) program. EPA’s PSD implementing regulations were promulgated in 1980. 45 Fed. Reg. 52,676 (Aug. 7, 1980), attached as Appendix A. The federal PSD program at 40 C.F.R. § 52.21 applied in Michigan until October 16, 2008—including at the time when certain projects at the De Young plant at issue in this motion occurred.⁴ 73 Fed. Reg. 53,366 (Sept. 16, 2008); 73 Fed. Reg. 1570 (Jan. 9, 2008).

The Nonattainment NSR and PSD programs require certain new or modified major sources of air pollution⁵ to, among other things: (1) obtain a permit; (2) demonstrate that its emissions will not “cause” or “contribute to” an exceedance of ambient air standards or any applicable PSD “increment”; and (3) meet a stringent “best available pollution control technology” (BACT) or “lowest achievable emission rate” (LAER) emission limit, developed “case-by-case” based on the maximum degree of reduction achievable. 42 U.S.C. §§ 7473, 7475(a)(3) and (4), (d), (e), 7479(3), 7503(a). Major sources of air pollution that were installed before the CAA amendments implementing these programs were enacted (*i.e.*, the De Young Plant) were initially allowed to avoid these requirements. Congress temporarily “grandfathered” those facilities under the assumption that they would be retired at the end of their useful lives and replaced by new facilities that would be required to comply with the Nonattainment NSR and PSD programs. However, in the event an owner or operator chose not to retire a “grandfathered” facility, Congress ensured that those facilities would comply with the air pollution prevention

⁴ The PSD program was revised in early 2003. 67 Fed. Reg. 80,186 (Dec. 31, 2002). Those changes were not in effect at the time of the projects at issue in this motion. 67 Fed. Reg. at 80,240 (“All of these changes will take effect in the federal PSD program (codified at § 52.21) on March 3, 2003.”). This motion applies to projects occurring between July 22, 1992 and March 3, 2003. Any projects occurring outside that timeframe would require a slightly different legal analysis that will be addressed, as necessary, in a separate motion.

⁵ The PSD program requires permitting and analysis of air quality impacts prior to construction or modification of “major emitting facilities,” such as the De Young plant, “that emit, or have the potential to emit” 100 “tons per year” of a pollutant. 42 U.S.C. §§ 7475(a), 7479(1).

programs as soon as they were “modified.” *Alabama Power v. Costle*, 636 F.2d 323, 400 (D.C. Cir. 1979); *see also Wis. Elec. Power Co. v. Reilly*, 893 F.2d 901, 909 (7th Cir. 1990) (“WEPCO”) (“But Congress did not permanently exempt existing plants from these [PSD] requirements; section 7411(a)(2) provides that existing plants that have been modified are subject to the Clean Air Act programs at issue here.”). Thus, the obligations under the Nonattainment NSR and PSD programs are triggered at existing plants, like De Young, when a “major modification” occurs. 42 U.S.C. §§ 7475(a), 7503; 40 C.F.R. part 51, Appx. S and § 52.21(j), (r).

A “major modification” is “any physical change or change in the method of operation of” a major stationary source that would “result in a significant net emissions increase of any pollutant subject to regulation” under the CAA. *See* 40 C.F.R. part 51, Appx. S and § 52.21(b)(2)(i) (1980-2002).⁶ The Clean Air Act’s Nonattainment NSR and PSD programs define “modification” as including any physical or operational change without limitation. 42 U.S.C. § 7411(a)(4); *see also* 42 U.S.C. §§ 7479(2)(C) (incorporating § 7411(a)), 7501(4) (same). Because this definition, read literally, applies the PSD program to even the replacement of a screw during day-to-day maintenance at a pollution source, the United States Environmental Protection Agency (“EPA”) has adopted regulations which provide that “routine maintenance, repair, and replacement” (“routine maintenance”) activities are exempt from the definition of modification. 40 C.F.R. part 51, Appx S and §§ 51.165, 52.21(b)(2)(iii)(a); *see also* 57 Fed. Reg. 32313, 32316-19 (July 21, 1992) (explaining the need for the routine maintenance exemption to

⁶ The definition of “major modification” excludes changes that are “Routine maintenance, repair and replacement.” 40 C.F.R. § 52.21(b)(2)(iii)(a). Defendants have claimed that some or all of the projects at issue in this case are Routine Maintenance Repair and Replacement. This issue is distinct from the issues in this motion and is not at issue here. Whether the projects were “Routine maintenance, repair and replacement” will be determined through separate motions or at trial.

avoid PSD “encompass[ing] the most mundane activities at an industrial facility (even the repair or replacement of a single leaky pipe, or a change in the way the pipe is utilized.”); *Wis. Elec. Power Co. v. Reilly*, 893 F.2d 901, 905 (7th Cir. 1990) (noting that “the potential reach of these modification provisions is apparent: the most trivial activities-- the replacement of leaky pipes, for example-- may trigger the modification provisions...”). Thus, the “routine maintenance” exception is an agency-made exception from Congress’ language in the Clean Air Act.

Whether a project results in a significant “net emissions increase” is determined by calculating the “increase in actual emissions” based on the different definitions of “actual emissions” for pre-project and post-project periods. 40 C.F.R. § 52.21(b)(3)(i), (21) (1993). Once the increase is calculated, it is compared to the thresholds in 40 C.F.R. § 52.21(b)(23) to determine if the increase is “significant.”⁷

V. ARGUMENT.

A. Because Defendants Claim that the Physical Changes They Made at the Plant Were “Routine Maintenance” They Bear the Burden of Proof on That Assertion.

EPA created the “routine maintenance” exception from a requirement prescribed by Congress. Thus, the party claiming the benefit of the exception bears the burdens of production and of persuasion. *See U.S. v. First City Nat'l Bank of Houston*, 386 U.S. 361, 366 (1967) (explaining the “general rule where one claims the benefit of an exception to the prohibition of a statute” carries the burden of proof with respect to that exception). That general rule has been consistently applied to the “routine maintenance” exception. *Sierra Club v. Duke Energy*

⁷ A “significant” net emissions increase means an increase in the rate of emissions that would equal or exceed any of the following rates for the following pollutants: 40 tons per year of NO_x; 40 tons per year of SO₂; 7 tons per year of sulfuric acid mist, 25 tons per year of PM, and 15 tons per year of PM10. 40 C.F.R. § 52.21(b)(23)(i). For pollutants subject to regulation under the Act that are not set forth in 40 C.F.R. § 52.21(b)(23)(i), any increase is significant. 40 C.F.R. § 52.21(b)(23)(ii).

Indiana, Case No. 1:08-cv-437-SEB-TAB, 2010 U.S. Dist. LEXIS 32194 (S.D. Ind. March 30, 2010); *U.S. v. Cinergy Corp.*, 495 F. Supp. 2d 909, 931 (S.D. Ind. 2007) (“it ultimately would be [defendant’s] burden at trial to show that its activities are exempt from CAA compliance.”); *Commonwealth v. Allegheny Energy, Inc.*, 2008 U.S. Dist. LEXIS 97391 (W.D. Pa. Sept. 2, 2008) (“The party claiming the benefit of the [“routine maintenance”] exemption bears the burden of proving its applicability.”); *Sierra Club v. Morgan*, 2007 U.S. Dist. LEXIS 82760, *35 (W.D. Wis. Nov. 7, 2007) (“Because defendants are claiming the benefit of the [“routine maintenance”] exemption the burden falls on the defendants’ to show that the projects are exempt from [the Clean Air Act] compliance.”); *U.S. v. E. Ky. Power Coop, Inc.*, 498 F. Supp. 2d 976, 995 (E.K. Ky. 2007) (“The [plaintiff] will have to prove that there was a ‘modification’ – i.e., a physical change that resulted in a net emissions increase. Once that is proven, the burden shifts to [defendant] to prove that its activities are exempt from the definition of ‘modification’ because they were routine.”); *U.S. v. Ohio Edison Co.*, 276 F. Supp. 2d 829, 856 (S.D. Ohio 2003) (“the party claiming the benefit of an exemption to compliance with a statute bears the burden of proof as to the exemption.”).⁸

Because “routine maintenance” is an agency-created affirmative defense in derogation of the Act, Defendants have the burden of production and persuasion to show that the routine maintenance exception applies to each alleged modification raised by Sierra Club.

⁸ Only one Court has found that the plaintiff has the burden to prove the non-applicability of the “routine maintenance” defense. *U.S. v. Duke Energy Corp.*, 278 Supp.2d 619, 639-40 (M.D. N.C. 2003)(finding that the plaintiff has the burden to show non-routine physical change), vacated on other grounds by *Env’tl Def. v. Duke Energy Corp.*, 549 U.S. 561 (2007).

B. Emission Increases from the De Young Plant Must Be Calculated Based On the Actual-to-Potential Method.

1) The De Young Plant Does Not Meet the Conditions for Using the Actual-to-Projected-Actual Test, Thus the Default Actual-to-Potential Test Applies.

As noted above, the second factor used in determining whether a project occurring at a major source of air pollution is a “major modification” is whether the project results in a significant increase in pollutant emissions. There are two possible methods for calculating emission increases attributable to modifications under the NSR program: (1) actual-to-potential test; and (2) actual-to-projected-actual test.⁹ The rules provide no other applicable test for measuring increases, and no EPA interpretation or court decision allows a different test.¹⁰

As explained in detail below, originally, only the actual-to-potential test existed. 40 C.F.R. § 52.2(b)(2) (1980-1992). EPA promulgated the alternative, actual-to-projected-actual test in 1992, but established two conditions on the use of that test: (1) the emission unit to which it is applied must be an Electric Utility Steam Generating Unit (“EUSGU”)¹¹; and (2) any

⁹ Various names are used for the actual-to-projected-actual test, but all refer to the same methodology. *See e.g.*, *New York v. EPA*, 413 F.3d 3, 16, 34 (D.C.Cir. 2005) (referring to the 1992 rule’s “representative actual” test as the “actual-to-projected-actual test”); *see also e.g.*, 57 Fed. Reg. at 32,323-24 (referring to the “representative actual test” variously as an “actual-to-actual,” “future actual projection,” “actual-to-future-actual”) (July 21, 1992); *id.* at 32,317 n.10 (referring to the test applied on remand following the *WEPCO* decision as “actual-to-future-actual”); *U.S. v. Ohio Edison Co.*, 276 F.Supp.2d 829, 865-66 (S.D. Ohio 2003) (describing the “actual to projected future actual” test as the “representative actual” test in § 52.21(b)(21)(v)); Letter from Francis X. Lyons, EPA, to Henry Nickel at 2 (May 23, 2000) (describing the “representative actual” test as a comparison of “baseline emissions and a projection of future emissions...”). Plaintiff here applies the most commonly-used name for the test in 40 C.F.R. § 52.21(b)(21)(v), the “actual-to-projected-actual” test.

¹⁰ The regulations contain a third theoretical method to calculate emission increases in 40 C.F.R. § 52.21(b)(21)(iii) (1980-2003) by calculating the difference between the pre-project emissions under § 52.21(b)(21)(ii) and the “allowable” post-project emissions under § 52.21(b)(21)(iii). However, there is no meaningful difference between “potential to emit” under § 52.21(b)(21)(iv) and “allowable” emissions under § 52.21(b)(21)(iii). *Compare* 40 C.F.R. § 52.21(b)(4) (defining potential to emit as the maximum capacity under physical design and operational limitations placed on the source) *with* § 52.21(b)(16) (defining allowable emissions as the maximum rate based on the physical capacity and applicable limits). Both describe the emissions based on enforceable limits and physical constraints. Therefore § 52.21(b)(21)(iii) and (iv) are functionally the same test for purposes of calculating an emission increase.

¹¹ 40 C.F.R. § 52.21(b)(31) defines an EUSGU as a unit capable of supplying more than one third of its potential electric output capacity and more than 25 megawatts of electricity to a distribution system for sale.

EUSGU using the test must submit “information demonstrating that the physical or operational change did not result in an emissions increase” to the EPA. 40 C.F.R. § 52.21(b)(21)(v)(1993-2002). Those two conditions for using the “actual-to-projected-actual” test apply to projects commenced on or after July 22, 1992 and completed on or before March 3, 2003. If either of those two conditions is not met, the default actual-to-potential test applies.

Because of their smaller size (*i.e.*, 11.5 MW and 22 MW, respectively), De Young units 3 and 4, are not EUSGUs. Pl’s Stmt. of Material Facts ¶¶ 3-4, *supra*; 40 C.F.R. § 52.21(b)(31) (an EUSGU must be capable of supplying more than 25 MW of electricity). Thus, those units fail to meet the first condition for using the actual-to-projected actual test. Additionally, Defendants admit that they did not submit the requisite reporting (Pl’s Stmt. of Material Facts ¶¶ 5, 10-12, *supra*), so they also failed to meet the second condition for the actual-to-projected actual test. Therefore, the applicable test for calculating emissions increases attributable to the De Young modifications is the only other test available: the actual-to-potential test.

2) The History of the Emission Increase Tests.

a. The “actual-to-potential” test has always been the default test.

The CAA’s definition of “modification” does not define each term within the “modification definition,” including “how to calculate... ‘increases’ in emissions.” *New York v. EPA*, 413 F.3d 3, 22 (D.C. Cir. 2005) (“*New York I*”). Instead, the applicable definitions were created by the EPA. In response to the Circuit Court of Appeals for the District of Columbia’s decision in *Alabama Power Co. v. Costle*, 636 F.2d 323 (D.C. Cir. 1979), the EPA revised its PSD regulations in 1980 and defined an emission increase, for purposes of determining when PSD applies to changes at existing sources, as “any increase in actual emissions from a particular physical change or change in method of operation.” 45 Fed. Reg. at 52,735. Under that

definition, determining whether a physical or operational change constitutes a “major modification” requires a comparison of the “actual emissions,” before and after the project. 40 C.F.R. § 52.21(b)(3)(i)(a).

Under the original, 1980, PSD regulations promulgated by EPA, “actual emissions” were defined as:

[T]he actual rate of emissions of a pollutant from an emissions unit, as determined in accordance with paragraphs (ii) – (iv) below.

(ii) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two-year period which precedes the particular date and which is representative of normal source operations... calculated using the unit’s actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.

(iii) The Administrator may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.

(iv) For any emissions unit which has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.

45 Fed. Reg. at 52,737 (promulgating 40 C.F.R. § 52.21(b)(21) (1980)). Thus, under 40 C.F.R. § 52.21(b)(21)(ii), *pre-project* emissions are dependent on the two years of emissions data preceding the modification.

However, *post-project* emissions must be treated differently because they obviously do not exist prior to the project—when the determination must be made as to whether the project is subject to PSD requirements. Thus, a regulatory presumption or projection of future emissions is necessary. EPA’s definition of post-project “actual emissions” contained such a presumption in 40 C.F.R. 52.21(b)(21)(iii) and (iv) (1980). EPA made clear that a pollution source undergoing a non-routine modification will rarely be considered to have “begun normal

operations,” therefore triggering the potential-to-emit definition of “actual emissions” for post-project emissions in 40 C.F.R. § 52.21(b)(21). 45 Fed. Reg. at 52,677 (“the source owner must quantify the amount of the proposed emissions increase. *This amount will generally be the potential to emit of the new or modified unit.*” (emphasis added)). EPA explained that, unless exempt as “routine,” projects at a facility are presumed to alter the facility sufficiently such that a modified plant cannot be said to have “begun normal operations”:

under the current regulations, changes to a unit at a major stationary source that are non-routine or not subject to one of the other major source [PSD] exemptions are deemed to be of such significance that pre-change emissions for the affected units should not be relied on in projecting post-change emissions. For such units, ‘normal operations’ are deemed not to have begun following the change, and are treated like new units. Put another way, the regulatory provision for units which have ‘not begun normal operations’ reflects an initial presumption that a unit that has undergone a non-routine physical or operational change will operate at its full capacity year-round.

63 Fed. Reg. 39,857, 39,858 (July 24, 1998); *see also* 56 Fed. Reg. 27,630, 27,633 (June 14, 1991) (explaining that the use of potential emissions is appropriate as a proxy because the pollution source’s future emissions are “difficult to predict”). In this sense, “[t]he term ‘actual-to-potential’ is somewhat of a misnomer, because in practice this methodology involves a determination of future actual emissions to the atmosphere.” *Id.* at 39,858. That is, implicit in the potential to emit test is the projection that a modification “results in” an increase up to a rate equal to the unit’s full capacity, unless the unit owner accepts enforceable emission limits.¹²

[C]hanges to a unit that are not routine nor subject to one of the other NSR exemptions are considered to be of such significance that pre-change emissions should not be relied on in projecting

¹² Again, even if a plant undergoing a non-routine change could be deemed to have nevertheless “begun normal operations,” the only applicable definition for its post-project “actual emissions” under § 52.21(b)(21) is subsection (iii), which provides that EPA can use the plant’s “allowable emissions” as its post-project “actual emissions.” This is the functional equivalent to the actual-to-potential test. *See Note 10, supra.*

post-change emissions. For such units, "normal operations" refers to operations after the change, and are deemed not to have begun. The regulations initially presume that such units will operate year-round at full capacity, but a source owner is free to overcome the presumption by agreeing to limit its potential to emit to any level desired through enforceable restrictions on operations or the use of pollution controls. For example, if limiting the potential to emit results in an insignificant change in emissions...

Letter from Francis X. Lyons, EPA, to Henry Nickel, Counsel for Detroit Edison Co., Enclosure at 18 n.14 (May 23, 2000) ("Detroit Edison Letter"), attached as Appendix B; Memorandum from John Calcagni, Director Air Quality Management Division, USEPA, to David Kee, Director Air and Radiation Division, Region V, USEPA, *Proposed Netting for Modifications at Cyprus Northshore Mining Corporation, Silver Bay, Minnesota*, p. 3 (Aug. 11, 1992) ("In other words, to determine if there is an emissions increase, the regulations require EPA to compare the source's actual emissions before the change and its potential emissions after the change. This is the so-called "actual-to-potential" test. This test, in effect, presumes that following the change the source will operate at 100 percent of its physical capacity. The source owner may overcome this presumption by agreeing to federally-enforceable restrictions that would prevent the plant from significantly exceeding its pre-modification emissions baseline."), attached as Appendix C.

Thus, a source owner has two options: (1) calculate emission increases based on the post-project potential emissions; or (2) rebut this initial presumption by agreeing to enforceable permit limits restricting the unit's emissions to avoid a significant emission increase. 63 Fed. Reg. at 39,858; *New York I*, at 15 ("According to EPA... an increase occurs under the 1980 regulations if... a source's past annual emissions (typically measured by averaging out the two 'baseline' years prior to the change) are less than future annual emissions (measured by calculating the source's potential to emit after the change).") The "actual-to-potential" test was

upheld by the First Circuit Court of Appeals as reasonable interpretation of the regulations and consistent with their intent, especially because future emissions are difficult to predict. *Puerto Rican Cement Co. Inc. v. EPA*, 889 F.2d 292, 296-99 (1st Cir. 1989) (citing the 1980 preamble and holding that “EPA’s application of its [actual-to-potential] regulation to the facts of this case complies with the expressed intent of the regulation’s writers.”).

b. The only alternative test-- “actual-to-projected-actual” test-- was codified in 1992 and can only be used if certain conditions are met.

In 1990, the Seventh Circuit issued an opinion rejecting the use of the “actual-to-potential” test for the specific projects in the case before it, which the Seventh Circuit deemed to be “like-kind replacements.” *Wis. Elec. Power Co. v. Reilly*, 893 F.2d 901 (7th Cir. 1990) (“WEPCO”). Instead, the WEPCO court proposed to apply a projection of future operating hours and emission rate for certain type of projects. In 1991, EPA proposed a rule change to address and reconcile the Seventh Circuit’s WEPCO decision and the First Circuit’s decision in *Puerto Rican Cement*, 889 F.2d 292, which upheld the actual-to-potential test. The resulting rule, known as the “WEPCO Rule,” was intended to clarify when the original “actual-to-potential” test would apply and when the new “actual-to-projected-actual” test would apply. 56 Fed. Reg. at 27,630-33. Under the rule, EPA allowed the “actual- to-projected-actual” test for all EUSGUs, regardless of whether the change fit the Seventh Circuit’s judicially-created “like kind” category. 57 Fed. Reg. 32,314, 32,317 (July 21, 1992).

Critically for this case, however, EPA conditioned use of this test. First, it only applied it to EUSGUs. 63 Fed. Reg. at 39,859; 57 Fed. Reg. at 32,316-17; Detroit Edison Letter, *supra*, Enclosure at 18 (May 23, 2000) (“For units *that are not ‘electric utility steam generating units...* the post-change emissions ‘shall equal the *potential to emit of the unit*,’ ...” (emphasis added));

Letter from R. Douglas Neeley, Chief Air and Radiation Technology Branch Air, Pesticides, and Toxics Management Division, USEPA, to Dr. Donald R. van der Vaart, Division of Air Quality, NC Department of Environment and Natural Resources p. 2 (Aug. 8, 2001) (“...in the case of an emissions unit (other than an electric utility steam generating unit) with a proposed modification that has not yet taken place, the change in actual emissions is the difference between past actual emissions in tons per year and future potential/allowable emissions in tons per year. “), attached as Appendix D.

Second, the WEPCO rule required certain monitoring and reporting obligations from those EUGSUs hoping to take advantage of the “actual to projected actual” test. Specifically, the final rule limited the “actual-to-projected-actual” test to **only** those utilities that satisfy post-project recordkeeping and reporting requirements. This change was intended to address valid concerns raised by the public during the notice and comment rulemaking process:

An environmental group and several State agencies noted that the projected post-change emissions should become an enforceable permit condition in order to commit a source to limit its future emissions to a specific amount and to provide assurance that these projections are reasonable estimates of expected emissions. If a source will not accept such a permit condition, then the source should have to use potential post-change emissions.

57 Fed. Reg. at 32,324. EPA’s final rulemaking agreed with these comments that extending the “actual-to-projected-actual” test to all EUGSUs would be problematic and therefore included important monitoring and reporting conditions on the test in the final rule.

After a thorough review of the comments, EPA concludes that the comparison of “actual emissions before” to a projection of “actual emissions after” a physical or operational change at an existing utility steam generating unit is workable and, **with the added safeguard discussed below**, is the most suitable method for evaluating emissions changes at such sources.

...

Several commenters opposing today's regulatory changes charged that without appropriate assurances utilities could deliberately underestimate future operations (and thus emissions) for the purpose of avoiding review or that even where a forthright estimate is made, the forecast may prove inaccurate. The EPA is concerned that *without appropriate safeguards* increases in future actual emissions that in fact resulted from the physical or operational change could go unnoticed and unreviewed. ***For this reason, EPA has added the safeguard explained below.***

...

To guard against the possibility that significant increases in actual emissions attributable to the change may occur under this methodology, EPA is clarifying in the final regulations that *any utility which utilizes the "representative actual annual emissions" methodology to determine that it is not subject to NSR must submit* for 5 years after the change sufficient records to determine if the change results in an increase in representative actual annual emissions.

57 Fed. Reg. at 32,324-32,325 (emphasis added); *see also New York I*, 413 F.3d at 34 (describing the 1992 WEPCO Rule as requiring "utilities whose projections included no significant emissions increase" from a modification "to supply permitting authorities with a minimum of five years of data to verify the projections' accuracy") (citing 57 Fed. Reg. at 32,336); 63 Fed. Reg. at 39,859.

The WEPCO Rule's mandatory reporting obligations for plants electing to use the actual-to-projected-actual test is essential to a workable regulatory program. *See New York*, 413 F.3d at 35 (rejecting EPA's attempt to extend the actual-to-projected-actual test in 2003 to plants that did not meet minimum necessary monitoring and reporting obligations). EPA devised this "reasonable means of determining whether a significant increase in" emissions occurs, 57 Fed. Reg. at 32,325, by clearly putting the onus on EUSGUs opting to apply the actual-to-projected-actual test to: (1) keep records, (2) report emissions following the modification to the regulators,

and (3) to prove to the regulatory agencies each year for at least five years that emissions did not, in fact, increase. 63 Fed. Reg. 39,857, 39,859 (July 24, 1998) (“To guard against the possibility that significant unreviewed increases in actual emissions would occur under this methodology, the regulations provide that sources... demonstrate that the change has not resulted in an increase above baseline levels.”). It is this safeguard that ensures that applicability of PSD to modifications is straightforward, rather than forcing EPA and the public to prove years later, through needlessly expensive expert battles in district court, what the polluter should have projected prior to undertaking the project in the first place. *See, e.g., New York I*, 413 F.3d at 35 (agreeing that “the intricacies of the actual-to-projected-actual methodology” makes enforcement difficult without post-project recordkeeping and reporting by which to measure the reasonableness of a source’s projections); *see also WEPCO*, 893 F.2d at 917 (“EPA cannot reasonably rely on a utility’s own unenforceable estimates of its annual emissions...”).

3) EPA’s Interpretations of the WEPCO Rule Confirm That EUSGUs Failing to Meet the Reporting Obligations Cannot Use The Actual-to-Projected-Actual Test and are Instead Subject to the Default Actual-to-Potential Test.

EPA has long interpreted its own regulations as applying the “actual-to-potential” test to EUSGUs that fail to meet the reporting obligations under the 1992 WEPCO rulemaking. These interpretations of EPA’s own regulations have controlling weight. *Federal Express Corp. v. Holowecki*, 552 U.S. 389, 397 (2008) (“Just as we defer to an agency’s reasonable interpretations of the statute when it issues regulations in the first instance... the agency is entitled to further deference when it adopts a reasonable interpretation of regulations it has put in force” (internal citation omitted)); *Auer v. Robbins*, 519 U.S. 452, 461 (1997) (holding that an agency’s interpretation of its own regulation is “controlling unless plainly erroneous or inconsistent with the regulation.” (internal quotation omitted)); *Medical Rehabilitation Servs.*,

P.C. v. Shalala, 17 F.3d 828, 831 (6th Cir. 1994) (“Great deference is generally owed to an agency’s interpretation of its own regulations.”).

In a May 2000, guidance letter, EPA explained that the actual-to-projected-actual test in the 1992 WEPCO Rule can only be used by a utility that meets the monitoring and reporting requirements on which that test is conditioned.

For electric utility steam generating units, the post-change emission increase calculation is governed by regulations adopted in 1992 (57 Fed. Reg. 32,314, July 21, 1992), commonly referred to as the “WEPCO rule.”... A utility making a particular change, instead of accepting permit restrictions on the potential of the changed unit to emit a particular pollutant, may avoid PSD if its projection of “representative actual annual emissions” following the change is not significantly greater than its pre-change emissions, ***but only if*** the source “maintains and submits to the Administrator [or relevant state permitting authority] on an annual basis for a period of 5 years from the date the unit resumes regular operation, information demonstrating that the physical or operational change did not result in an emissions increase.” E.g., 40 C.F.R. § 52.21(b)(21)(v).

...

If [the utility] ***fails to comply*** with the reporting requirements of the WEPCO rule... ***it will be required to obtain a PSD permit....***

Detroit Edison Letter, Enclosure at 18-19, 22 (May 23, 2000) (emphasis added), attached as Appendix B. Similarly, in 2002, EPA again noted that the 1992 WEPCO rule “require[es] that, for any modified emissions unit using the actual-to-[projected]-actual test, you must submit for 5 years after the change sufficient records to demonstrate that the change has not resulted in a significant emissions increase over the baseline levels.” 67 Fed. Reg. 80,186, 80,193 (Dec. 31, 2002).

In filings with the Environmental Appeals Board, EPA again described the conditional nature of the “actual-to-projected-actual” test:

[T]he WEPCO rule alters how emissions increases are calculated from electric steam generating units... the rule enables post modification actual emissions to be determined by projecting the “representative actual annual emissions” of the unit... [However] the rule by its terms is provisional; a source may use the methodology *only if it submits* “on an annual basis, for a period of at least 5 years from the date the unit resumes regular operations, information demonstrating that the physical or operational change did not result in an emissions increase...” E.g., 40 C.F.R. § 51.166(b)(21)(v). Additionally, the rule specifies that the permitting authority is to make the ultimate projection of future emissions, id., § 51.166(b)(32) (“In projecting future emissions the reviewing authority shall” consider various facts) (emphasis added), so *failing to submit information enabling the permitting authority to project emissions likewise would prohibit a source from using these provisions.*

Initial Brief of the U.S. Environmental Protection Agency Enforcement 39-41, *In re Tennessee Valley Authority*, Case No. CAA-2000-04-008 (emphasis added), attached as Appendix E; *see also* Reply Brief of the U.S. Environmental Protection Agency Enforcement 56-57, *In re Tennessee Valley Authority*, Case No. CAA-2000-04-008 (explaining that EPA’s 1992 WEPCO rule “made an actual-to-projected-actual test available to such changes, but only when two prerequisites were satisfied...”, and further that “the rules themselves are expressly provisional, applying only where sources submit sufficient pre- and post-change emissions information to enable the permitting authority to calculate whether emissions would increase from the change.”) (citing 40 C.F.R. §§ 52.21(b)(21)(v); (b)(33)), attached as Appendix F.¹³ Similarly, in a filing with the Middle District of North Carolina, EPA described its intention behind the WEPCO Rule: that where a utility opts-out of the 1992 future-actual method, the actual-to-potential test applies. Pls. Mem. Supp. Partial Sum. J. at 35 and n.14, *U.S. v. Duke Energy*, Case No. 1:00-cv-

¹³ The Environmental Appeals Board did not reach this issue because the case was a review of a compliance order, in which the EPA Region initially chose to apply the more-favorable to the defendant “projected actual” test to TVA based on its enforcement discretion. *In re Tennessee Valley Authority*, 9 E.A.D. 357, 434-35 (EAB 2000). The Board expressed no opinion on the issue. *Id.*

1262 (M.D.N.C., filed 1/31/03) (noting that the “actual-to-potential” test applies because Duke failed to satisfy the WEPCO rule’s reporting requirements), attached as Appendix G. And again in 2007, EPA stated that under the 1992 WEPCO Rule, any EUSGU that utilizes the “representative actual annual emissions methodology” must maintain and submit sufficient records showing that the change did not result in an emission increase. 72 Fed. Reg. 10,445, 10,447 (March 8, 2007).¹⁴

These EPA interpretations of its own regulations are controlling: an EUSGU that fails to satisfy the reporting requirements upon which the actual-to-projected-actual test is conditioned cannot use that test and, therefore, defaults to the actual-to-potential test.

In sum, because De Young Units 3 and 4 are not EUSGUs they do not satisfy the first condition for using the actual-to-projected-actual test. De Young Unit 5 also cannot use the actual-to-projected-actual test because the Defendants failed to meet the second condition when they did not conduct the required post project monitoring and reporting. Thus, the actual-to-potential test applies to all projects commenced prior to March 3, 2003.

VI. CONCLUSION.

For the foregoing reasons, Sierra Club respectfully requests that the Court enter partial summary judgment for Sierra Club finding that: (1) Defendants have the burden of proof on the

¹⁴ Defendants may argue that the actual-to-potential test cannot be used, notwithstanding the fact that Unit 3 and Unit 4 are not EUSGUs and that Defendants opted not to meet the reporting requirement, based on the Seventh Circuit’s decision in *WEPCO*. However, the *WEPCO* case provides no support for such an argument. First, as a Seventh Circuit case, it is not binding on this Court. Second, even if it were considered, the 1990 *WEPCO* decision interpreted regulations that have since been changed (in response to the decision). EPA’s 1992 final rule clearly was intended to address and supplant the “like-kind” formula suggested by the *WEPCO* decision. 57 Fed. Reg. at 32,326 (“In response to comments regarding ‘like-kind’ replacements, EPA notes that today’s regulations recognize no distinction between ‘like-kind’ replacements and other nonroutine physical or operational changes at a utility steam generating unit.”). The *WEPCO* decision, therefore, does not address the July 1992 rules; EPA’s 1992 rulemaking replaces the rules that were interpreted in the *WEPCO* decision.

“routine maintenance” defense; and (2) emission increases from changes to De Young unit 3, 4 and 5 must be calculated based on the actual-to-potential test.

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